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     FILE 'REGISTRY' ENTERED AT 10:51:50 ON 23 JUN 2003
                E ALCOHOL/CN
                E WATER/CN
                E FATTY ALCOHOLS/CN
                E ALCOHOL/CN
L1            1 SEA ABB=ON  ALCOHOL/CN
                E WATER/CN
L2            1 SEA ABB=ON  WATER/CN
                E FATTY ALCOHOLS/CN
L3            1 SEA ABB=ON  "FATTY ALCOHOLS"/CN
                E FATTY ETHERS/CN
                E FATTY ESTERS/CN
                E POLYOLS/CN
                E GLYCOLS/CN
                E VEGETABLE OIL/CN
L4            1 SEA ABB=ON  "VEGETABLE OIL"/CN
                E MINERAL OIL/CN
L5            1 SEA ABB=ON  "MINERAL OIL"/CN
                E LIPOSOMES/CN
                E LAMINAR LIPIDS/CN
                E SILICONE OILS/CN
L6            5 SEA ABB=ON  L1 OR L2 OR L3 OR L4 OR L5
                E MINERAL OILS/CN
L7            4 SEA ABB=ON  "MINERAL OILS"/CN
L8            8 SEA ABB=ON  L6 OR L7

     FILE 'HCAPLUS' ENTERED AT 10:56:06 ON 23 JUN 2003
L9       146375 SEA ABB=ON  ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR ?COCONUT? OR
                ?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?APPLE? OR
                ?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR ?MANGOSTINE? OR
                ?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR ?TOMATO?
L10       34017 SEA ABB=ON  L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR ?FATTY?(W)(?A
                LCOHOL? OR ?ETHER? OR ?ESTER?) OR ?POLYOL? OR ?GLYCOL? OR
                (?VEGETABLE? OR ?MINERAL? OR ?SILICON?)(W)OIL? OR ?LIPOSOME?
                OR ?LAMINAR?(W)?LIPID?)
L11        4945 SEA ABB=ON  L10 AND (?COSMETIC? OR ?SKIN? OR ?HAIR? OR ?NAIL?
                OR ?LIPS? OR ?DERM? OR ?COLLAGEN? OR ?ELASTIN? OR ?STRESS? OR
                ?AGING? OR ?GLYCOSAMIN? OR ?CELLULIT? OR ?WRINKLE? OR ?DISCOLOR
                ?)
L12        1888 SEA ABB=ON  L11 AND ((?AEROSOL? OR ?PUMP?)(W)?SPRAY? OR
                ?CREAM? OR ?DISPERS? OR ?FOAM? OR GEL? OR ?LOTION? OR ?MOUSSE?
                OR ?OINTMENT? OR ?POWDER? OR ?PATCH? OR ?POMADE? OR ?SOLUTION?
                OR ?STICK? OR ?TOWLETTE?)
L13           0 SEA ABB=ON  L12 AND (?UNDIFF?(W)(?CELL? OR ?CULTUR?))
L14           0 SEA ABB=ON  L12 AND ?UNDIFF?(W)?CELL?
L15           0 SEA ABB=ON  L11 AND ?UNDIFF?(W)?CELL?
L16           1 SEA ABB=ON  L10 AND ?UNDIFF?(W)?CELL?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     11:12:20 ON 23 JUN 2003

     FILE 'HCAPLUS' ENTERED AT 11:16:15 ON 23 JUN 2003
L17          17 SEA ABB=ON  L10 AND ?CULTURE?(5A)?BROTH?
L18          18 SEA ABB=ON  L16 OR L17
L19           2 SEA ABB=ON  L12 AND ?CULTURE?(5A)?BROTH?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
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11:18:09 ON 23 JUN 2003
L20 29 SEA ABB=ON L18
L21 23 DUP REMOV L20 (6 DUPLICATES REMOVED)

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=> d que stat l18
L1             1 SEA FILE=REGISTRY ABB=ON  ALCOHOL/CN
L2             1 SEA FILE=REGISTRY ABB=ON  WATER/CN
L3             1 SEA FILE=REGISTRY ABB=ON  "FATTY ALCOHOLS"/CN
L4             1 SEA FILE=REGISTRY ABB=ON  "VEGETABLE OIL"/CN
L5             1 SEA FILE=REGISTRY ABB=ON  "MINERAL OIL"/CN
L6             5 SEA FILE=REGISTRY ABB=ON  L1 OR L2 OR L3 OR L4 OR L5
L7             4 SEA FILE=REGISTRY ABB=ON  "MINERAL OILS"/CN
L8             8 SEA FILE=REGISTRY ABB=ON  L6 OR L7
L9        146375 SEA FILE=HCAPLUS ABB=ON  ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR
                 ?COCONUT? OR ?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?
                 APPLE? OR ?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR
                 ?MANGOSTINE? OR ?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR
                 ?TOMATO?
L10        34017 SEA FILE=HCAPLUS ABB=ON  L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR
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                 ?GLYCOL? OR (?VEGETABLE? OR ?MINERAL? OR ?SILICON?)(W)OIL? OR
                 ?LIPOSOME? OR ?LAMINAR?(W)?LIPID?)
L16            1 SEA FILE=HCAPLUS ABB=ON  L10 AND ?UNDIFF?(W)?CELL?
L17           17 SEA FILE=HCAPLUS ABB=ON  L10 AND ?CULTURE?(5A)?BROTH?
L18           18 SEA FILE=HCAPLUS ABB=ON  L16 OR L17
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=> d ibib abs hitrn l18 1-18

L18 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:682599 HCAPLUS
DOCUMENT NUMBER: 135:370683
TITLE: Regulation of growth and biosynthetic activity of the medicinal jelly mushroom Tremella mesenterica (Retz.: Fr.) Pure culture
AUTHOR(S): Reshetnikov, Sergey V.; Wasser, Solomon P.; Duckman, Ina; Tsukor, Katherina
CORPORATE SOURCE: N. G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Kiev, 252001, Ukraine
SOURCE: International Journal of Medicinal Mushrooms (2001), 3(1), 45-51
CODEN: IMMUFR; ISSN: 1521-9437
PUBLISHER: Begell House, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Different yeast-like budding haploid strains of the yellow brain mushroom Tremella mesenterica (Retz.: Fr.) were obtained using the monobasidiosporous culture method from basidioma specimens collected in Israel. Nutritional requirements for biomass growth and extracellular polysaccharide prodn. were investigated. A two-stage technol. for acidic glucuronoxylomannan prodn. was developed. On a first stage inoculum culture medium was balanced for biomass accumulation, and maximal polysaccharide prodn. was obtained on a fermn. medium under conditions of nitrogen limitation. A crude product obtained by **alc**. pptn. of **culture broth** contains 40% of acidic glucuronoxylomannan, 5% of neutral glucuronoxylomannan, 30% of cell biomass, and also includes low mol. wt. substances, free amino acids, and mineral elements.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:472400 HCAPLUS
DOCUMENT NUMBER: 133:192103
TITLE: Purification and characterization of organic solvent-stable lipase from organic solvent-tolerant Pseudomonas aeruginosa LST-03
AUTHOR(S): Ogino, Hiroyasu; Nakagawa, Satoshi; Shinya, Kaori; Muto, Toshiaki; Fujimura, Nobuyuki; Yasuda, Masahiro; Ishikawa, Haruo
CORPORATE SOURCE: Department of Chemical Engineering, Osaka Prefecture University, Osaka, 599-8531, Japan
SOURCE: Journal of Bioscience and Bioengineering (2000), 89(5), 451-457
CODEN: JBBIF6; ISSN: 1389-1723
PUBLISHER: Society for Bioscience and Bioengineering, Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An org. solvent-stable lipase (LST-03 lipase) secreted into the **culture broth** of the org. solvent-tolerant Pseudomonas aeruginosa LST-03 was purified by ion-exchange and hydrophobic interaction chromatog. in the presence of 2-propanol. The purified enzyme was homogeneous as detd. by SDS-PAGE. The mol. mass of the lipase was estd. to be 27.1 kDa by SDS-PAGE and 36 kDa by gel filtration. The optimum pH and temp. were 6.0 and 37.degree.C. LST-03 lipase was stable at pH 5-8 and below 40.degree.C. Its hydrolytic activity was highest against

tricaproin (C6), Me octanoate (C8), and **coconut** oil resp. among the triacylglycerols, fatty acid Me esters, and natural oils investigated. The enzyme cleaved not only the 1,3-positioned ester bonds, but also the 2-positioned ester bond of triolein. It exhibited high levels of activity in the presence of n-decane, n-octane, DMSO, and DMF as well as in the absence of an org. solvent. In addn., LST-03 lipase was stabler in the presence of n-decane, **ethyleneglycol**, DMSO, n-octane, n-heptane, isooctane, and cyclohexane than in the absence of an org. solvent.

IT **64-17-5**, Ethanol, uses
RL: NUU (Other use, unclassified); USES (Uses)
(purifn. and characterization of org. solvent-stable lipase from org. solvent-tolerant Pseudomonas aeruginosa LST-03)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:363402 HCAPLUS
DOCUMENT NUMBER: 131:143569
TITLE: Production and properties of the linamarase and amygdalase activities of Penicillium aurantiogriseum P35
AUTHOR(S): Petruccioli, Maurizio; Brimer, Leon; Cicalini, Anna Rita; Pulci, Valentina; Federici, Federico
CORPORATE SOURCE: Department of Agrobiology and Agrochemistry, University of Tuscia, Viterbo, I-01100, Italy
SOURCE: Bioscience, Biotechnology, and Biochemistry (1999), 63(5), 805-812
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of medium compn. on the prodn. of .beta.-glucosidase (amygdalase and linamarase) by P. aurantiogriseum P35 were studied and the medium optimized as follows (g/L of deionized **water**): pectin, 10.0; (NH4)2SO4, 8.0; KH2PO4, 8.0; Na2HPO4, 2.8; MgSO4.cntdot.7H2O, 0.5; yeast ext., 4.0; initial pH, 6.0. When grown in a bench fermenter on this medium, the fungus produced 50.5 mU of amygdalase and 9.4 mU of linamarase per mL of **culture broth**. Two .beta.-glucosidases (PGI and PGII), each having amygdalase and linamarase activities, were recovered from the **culture broth** and purified; their mol. wts., as native enzymes, were estd. to be approx. 247 and 147 kDa, resp. Both enzymes showed the same optimum pH (6.0) but different optimum temps. (55 and 60.degree. for PGI and PGII, resp.). The thermostability (10 min at 60.degree.) and half-life of enzyme activity (7 h at 60.degree.) of PGII were higher than those of PGI (10 min at 50.degree. and 2 h at 55.degree., resp.). A wide range of cyanogenic glycosides (such as tetraphyllin B, epivolkenin, gynocardin, passibiflorin, prunasin, taxiphyllin, amygdalin, **lucumin**, sambunigrin, dhurrin, linamarin and cardiospermin sulfate) were hydrolyzed by both enzymes.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:372161 HCAPLUS
DOCUMENT NUMBER: 129:106670
TITLE: Lectin inhibitor and chitinase of **cucumber**
AUTHOR(S): Kato, J.; Ogihaa, J.; Oishi, K.
CORPORATE SOURCE: Dep. Agric. Biol. Chem., College Bioresource Sci., Nihon Univ., Tokyo, 154-8513, Japan

SOURCE: Kichin, Kitosan Kenkyu (1998), 4(2), 234-235
CODEN: KKKEFB; ISSN: 1340-9778
PUBLISHER: Nippon Kichin, Kitosan Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The lectin inhibitor obtained from **cucumber** plant and fruit, have chitin like moiety in its mol., decreased the release of reducing sugar from ethylene **glycol** chitin by **cucumber** chitinase. This result suggest the chitin moiety of the lectin inhibitor may act as a chitinase substrate and compete with EGC or as a inhibitor bind to catalytic site of the chitinase. F. oxysporum produce a substance which inhibit **cucumber** lectin activity in the **culture broth** and its inhibitory activity was disappeared by incubation with **cucumber** chitinase was obsd. The chitin like substance "lectin inhibitor" in the plant and generated by F. oxysporum maybe controlled by plant chitinase.

L18 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:305501 HCAPLUS
DOCUMENT NUMBER: 127:4136
TITLE: Enhanced secretion of peroxidase from **carrot** hairy roots using polyethylene **glycol**
AUTHOR(S): Kim, Yong Hwan; Kim, Ji Hyeon; Yoo, Young Je
CORPORATE SOURCE: Department of Chemical Engineering and the Institute of Genetics and Molecular Biology, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Journal of Fermentation and Bioengineering (1997), 83(4), 397-400
CODEN: JFBIEX; ISSN: 0922-338X
PUBLISHER: Society for Fermentation and Bioengineering, Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Effects of various org. solvents and polyethylene **glycol** (PEG) on the secretion of peroxidase from **carrot** hairy roots were investigated. The peroxidase activity in **culture broth** was significantly enhanced without adverse effects on root growth when PEG was employed while other org. permeabilizing agents exerted harmful effects on root growth. PEG with a mol. wt. of over 6000 g/mol enhanced the secretion of peroxidase dramatically. Since PEG did not induce the formation of pores in the root cell membrane as confirmed by staining using Neutral Red, it was thought that the mechanism of secretion enhancement of peroxidase by PEG is different from that of other org. solvents which make the cell membrane permeable. Since PEG does not adversely affect the root growth, PEG can be applied to the repeated use of root cells for prodn. of peroxidase.

L18 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:319665 HCAPLUS
DOCUMENT NUMBER: 120:319665
TITLE: Accumulation of hydroxyproline-rich glycoprotein in **cucumber** leaves inducted by fungal elicitors
AUTHOR(S): Su, Bo; Liu, Yu-Gang; Ouyang, Guang-Cha
CORPORATE SOURCE: Sch. Life Sci., Fudan Univ., Shanghai, 200433, Peop. Rep. China
SOURCE: Zhiwu Shenglixue Tongxun (1993), 29(5), 337-9
CODEN: CHWSAX; ISSN: 0412-0922
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The hydroxyproline-rich glycoprotein (I) in leaf of Cucumis sativus is enhanced with EtOH ext. of **culture broth** of

Colletorichum lagenarium. 2-Chloroethylphosphonic acid also induces the accumulation of I in the leaf of Cucumis sativus. However, CoCl2 antagonizes the induction of I with the EtOH ext. of **culture broth** of Colletorichum lagenarium.

IT **64-17-5**, Ethanol, biological studies
RL: BIOL (Biological study)
(**culture broth** of Colletorichum lagenarium extd. with, for enhancement of hydroxyproline-rich glycoprotein in **cucumber** leaves)

L18 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:447463 HCAPLUS
DOCUMENT NUMBER: 119:47463
TITLE: Production of thermotolerant .beta.-amylase by Bacillus circulans
AUTHOR(S): Kwan, H. S.; So, K. H.; Chan, K. Y.; Cheng, S. C.
CORPORATE SOURCE: Dep. Biol., Chin. Univ. Hong Kong, Shatin, Hong Kong
SOURCE: World Journal of Microbiology & Biotechnology (1993), 9(1), 50-2
CODEN: WJMBEY; ISSN: 0959-3993
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An isolate from a Hong Kong soil sample which produced .beta.-amylase was identified as a thermotolerant strain of Bacillus circulans with a growth range of 35 to 55.degree.. The .beta.-amylase was stable at 45.degree. for 30 min but lost half of its activity after 30 min at 50.degree.. Max. specific activity of .beta.-amylase (36.2 units/mg protein) in the **culture broth** was detected after 36 h of cultivation at 45.degree. in a medium contg. sol. starch, beef ext., **coconut water** and inorg. salts.

L18 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:164767 HCAPLUS
DOCUMENT NUMBER: 112:164767
TITLE: Breath-freshening dentifrices containing copper gluconate, a fluorine compound, and alkyl sulfates
INVENTOR(S): Ishikawa, Masao; Shibuya, Koji
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 321180	A1	19890621	EP 1988-311769	19881213
EP 321180	B1	19920729		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 01160911	A2	19890623	JP 1987-319537	19871217
JP 2540895	B2	19961009		
AT 78681	E	19920815	AT 1988-311769	19881213
ES 2043856	T3	19940101	ES 1988-311769	19881213
PRIORITY APPLN. INFO.:			JP 1987-319537	19871217
			EP 1988-311769	19881213

AB An oral compn. comprises an admixt. of Cu gluconate, a F compd., and an alkali metal salt of C8-18 alkyl sulfates, is effective in suppressing mouth odor. The compn. may further comprise bactericides and ext. of Labiatae or Myrtaceae. A soln. (0.5 mL) contg. Cu gluconate 0.005, Na

monofluorophosphate 0.05, and Na lauryl sulfate 0.001% was added to 4.5 mL of a Todd Hewit **broth culture** and 0.1 mL of precultured Fusobacterium nucleatum having an optical d. of 1.0 was added; after cultivation of the medium for 2 days at 37.degree., absorbance at 550 nm was 0 compared to 0.75 for the control which used a soln. contg. 0.005% Cu gluconate only. A toothpaste contained Al(OH)3 43, glycerin 20, Na CM-cellulose 2, Na lauryl sulfate 2, flavor 1, Na saccharin 0.1, Na N-lauroyl sarcosinate 0.2, Na monofluorophosphate 0.1, Cu gluconate 0.01%, and **water** for the balance.

L18 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1985:610588 HCAPLUS
DOCUMENT NUMBER: 103:210588
TITLE: Diurnal dynamics of extracellular organic acid levels in algal culture media
AUTHOR(S): Sakevich, A. I.; Tsarenko, V. M.
CORPORATE SOURCE: Inst. Gidrobiol., Kiev, USSR
SOURCE: Gidrobiologicheskii Zhurnal (1985), 21(5), 35-9
CODEN: GBZUAM; ISSN: 0375-8990
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Free and bound org. acids (OAs) were found to accumulate in the **culture broth** of Microcystis aeruginosa, Scenedesmus **acuminatus**, and Anabaena variabilis at certain hours of the day. During daylight, the OAs constituted 80-87% of the total org. matter. During active growth and biomass accumulation, the following OAs were detected: acetate, butyrate, propionate, **glycolate**, citrate, tartrate, succinate, malate, lactate, and .alpha.-ketoglutarate. For M. aeruginosa, the concns. of nonvolatile and volatile OAs were 19.8-40.6 and 1.6-12.1 mg/L, resp. The diurnal dynamics of extracellular OAs may be assocd. with variations of the functional activity of the algae and, particularly, by the intensity of reprodn.

L18 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:403928 HCAPLUS
DOCUMENT NUMBER: 91:3928
TITLE: Highly viscous polysaccharide
INVENTOR(S): Hirota, Tetsuji; Miyata, Nobuo; Mitsuda, Shinjiro; Kikuchi, Toshihiko
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54028897	A2	19790303	JP 1977-95376	19770809
JP 59013195	B4	19840328		

PRIORITY APPLN. INFO.: JP 1977-95376 19770809
AB A highly viscous polysaccharide was produced by culturing Pestalotia on a liq. medium contg. **tomato** juice or on soybean whey. Thus, Pestalotia species No. 101 (FERM-P 4136) was aerobically cultured at 30.degree. for 72 h on 6.5 L of medium (pH 5.5) contg. **tomato** juice 30 and glucose 3%. The **culture broth** was dild. 3-fold with addn. of hot **water** and was then centrifuged. The supernatant was mixed with 2 vols. of Me2CO to ppt. the polysaccharide. The ppt. was purified by repeating the Me2CO pptn. to yield 48 g of a

white and highly viscous polysaccharide without taste or odor. The polysaccharide was a .beta.-1,3-glucan [9051-97-2] with a mean polymn. of 300-500 and was highly viscous in aq. solns.

L18 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:21463 HCAPLUS
DOCUMENT NUMBER: 90:21463
TITLE: Tissue cultures under boron deficiency
AUTHOR(S): Krosing, M.
CORPORATE SOURCE: Inst. Nutzpflanzenforsch., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Pflanzenernaehrung und Bodenkunde (1978), 141(5), 523-33
CODEN: ZPBOAL; ISSN: 0372-963X
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Cambium tissue from **sunflowers** and **carrots** were cultured in a nutrient soln. with graduated supplies of B. A light-colored and well-growing callus was formed only in the presence of B. Explants on a B-deficient medium agglutinated at the edges, had only small areas of cell division, and revealed deposits on walls of some cells. Deficient tissues also became noticeably darker. Callus grown on a normal medium and then transferred to a B-deficient medium slowed down in growth rate and also turned dark. In contrast to normal calli, the deficient cultures could not be easily sepd. in **water** into individual cells or small cell groups. Moreover, the cells were smaller on the av. and often revealed grainy contents and (in the case of **carrots**) accumulation of plasma at the ends of the cells. A large no. of deficient cells were plasmolyzed. An accumulation of **undifferentiated cells** in the cambium region was particularly striking in dicotyledons under conditions of B deficiency.

L18 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1977:87911 HCAPLUS
DOCUMENT NUMBER: 86:87911
TITLE: Good flavored and fermented sugar solution
INVENTOR(S): Ogasa, Katsuhiro; Kawashima, Takuji; Shimamura, Seiichi; Miyagawa, Hiroshi; Hori, Yukio; Iwatsuki, Keiji
PATENT ASSIGNEE(S): Morinaga Milk Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51115965	A2	19761013	JP 1975-37823	19750331
JP 56025306	B4	19810611		

PRIORITY APPLN. INFO.: JP 1975-37823 19750331
AB A Saccharomyces was acclimated on a fruit juice and adjusted to 30-40.degree. Brix with addn. of sugar, by culturing for 1-2 days at 30.degree.. The acclimated **culture broth** was added to a sugar soln. of 30-75.degree. Brix in an amt. equiv. to 0.1-0.3 g of the fruit juice and 107-5 .times. 108 yeast cells/g sugar and cultured with stirring at 30-40.degree. for <24 h. Thus, a good flavored and fermented sugar soln. contg. <1% **alc**. was obtained by removing the yeast cells from the fermented soln. For example, .apprx.1.5 kg fruit juice

medium of 30.degree. Brix was prepd. by mixing a com. concd. Niagara **grape** juice (50.degree. Brix) 300, a com. honey (80.degree. Brix) 380, and **water** 820 g. S. cerevisiae ellipsoides OUT 7896 was acclimated twice to the medium by culturing 24 h at 30.degree.. The acclimated culture contained fruit juice equiv. to 1500 g of the original juice and 1.1 .times. 108 cells/g. The acclimated culture, 800 g, was added to 10 kg honey soln. (50.degree. Brix) and th soln. was fermented with stirring at 37.degree. for 15 h. A clear and amber liq. (pH 3.5) contg. 0.85% **alc**. was obtained in a yield of .apprx.8 kg by centrifugation and filtration of the fermented soln.

L18 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:96031 HCAPLUS
DOCUMENT NUMBER: 78:96031
TITLE: Defoamers in industrial microbiological synthesis. IV. Production of a highly effective ester-type defoamer from refining-industry fatty acids
AUTHOR(S): Ivanov, St. A.; Bliznakova, L. T.
CORPORATE SOURCE: Univ. Plovdiv, Plovdiv, Bulg.
SOURCE: Nauchni Trudove - Plovdivski Universitet Paisii Khilendarski (1972), 10(2), 123-6
CODEN: NTPUB6; ISSN: 0369-6227
DOCUMENT TYPE: Journal
LANGUAGE: Bulgarian

AB An ester-type antifoaming agent for use in com. microbiol. synthesis was developed from residues of **vegetable oil** refining. The residues, contg. fatty acids 40-90, and neutral oils 10-60%, are esterified with a tech. grade glycerol. Earlier studies showed that the presence of free fatty acids in amts. exceeding 5% in the defoamer detrimentally affects the growth of Actinomyces; and the esterification was carried on until products of acid no. 4 were obtained. The most suitable catalyst was Zn and its sol. salts, since they had a stimulating effect on Actinomyces. Particularly effective defoamers were prepd. by esterification at 210-40.degree., under 600-700 mm Hg pressure, at stirring rates of 50-60 rpm, using a 40-50% excess of glycerol based on the fatty acid content of the starting material. The ester products contained triglycerides 20-35, diglycerides 20-40, monoglycerides 20-30, free fatty acids 0.5-2.0, free glycerol 0.8-1.8, nonsaponifiables 1.9-2.5, and moisture 0.1-0.3%. The HLB (hydrophilic-lipophilic balance) value was 2.5-2.6. The products were dark-red in color, d2020 0.9448-0.9453, n20D 1.4760-1.4768, acid no. 1.0-4.0, peroxide no. 2.5-2.8 (0.002N Na2S2O3/g), sapon. no. 140-150, ester no. 137-145, hydroxyl no. 62-70, and the foam suppressing effect (in ml defoamer/100 ml **culture broth**) 0.07-0.15. Lab. tests showed that the ester defoamer effect on the growth of Actinomyces and the activity of the final product was the same as that of twice the amt. of **sunflower** oil additive.

L18 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1972:96876 HCAPLUS
DOCUMENT NUMBER: 76:96876
TITLE: Mechanism of parasitism in Myrothecium roridum
AUTHOR(S): Pawar, V. H.; Thirumalachar, M. J.
CORPORATE SOURCE: Hindustan Antibiot. Res. Cent., Poona, India
SOURCE: Plant Dis. Probl., Proc. Int. Symp., 1st (1970), Meeting Date 1966-1967, 173-8. Editor(s): Raychaudhuri, S. P. Indian Phytopathol. Soc.: New Delhi, India.
CODEN: 24NRA6
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A **culture broth** of M. roridum was filtered at pH 7.4. The active principle in the filtrate was extd. with petroleum ether, ext. concd. to 1/20 vol. and cooled to 0.degree., and a white cryst. phytotoxin sepd. The phytotoxin had a neutral reaction and a 162-164.degree. m.p. Proximate anal.: 66.4% C and 6.8% H. N, S, and halogen were absent. In EtOH it gave absorption peaks at 258-262 m.mu.. The ir absorption spectra showed peaks at 2.88-2.92, 3.37, 5.68, 5.83, 6.10, 7.06, 7.38, 8.55, 9.17, 10.1, 10.3 and 12.2 nm. It was sol. in benzene, EtOAc, ether, acetone, CHCl3, MeOH, and EtOH. It was insol. in **water** and slightly sol. in petroleum ether. A soln. of this necrocitin caused wilting of **tomato** shoots at a min. concn. of 0.5 .mu.g/ml after 48 hr. At 0.5 .mu.g/ml it was lethal to fresh **water** snails (Lymnaea luteola f. australis) in 8 hr.

L18 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1969:39113 HCAPLUS
DOCUMENT NUMBER: 70:39113
TITLE: Bisphenol monophosphinate soap germicides
INVENTOR(S): Jungermann, Eric; Reich, Henry E.
PATENT ASSIGNEE(S): Armour and Co.
SOURCE: S. African, 20 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 6704756		19680122		
PRIORITY APPLN. INFO.:			US	19660914

AB Certain P-contg. esters are useful as soap germicides, also as synergistic combinations with certain halogenated aromatic primary and secondary amines. The esters can be prepd. by **alcoholysis** of heterocyclic phosphinoyl chloride by using a bisphenol or by partially or completely hydrolyzing such as chloride to a phosphinic acid before reaction with the bisphenol. Thus, a mixt. of a soln. of 19.4 g. KOH in 100 ml. MeOH and a soln. of 142 g. 2,2'-methylenebis(4,5,6-trichlorophenol) in 200 ml. MeOH was heated to 45.degree.. A soln. of 67 g. phosphinoyl chloride (I), prepd. from 2,2,4-trimethyl-2-pentene, in 50 ml. MeOH was added dropwise to the 1st mixt. during 20 min. The mixt. was refluxed for 3 hrs., cooled, filtered, and stripped free of volatiles. The crude tan-colored solid residue was slurried with 100 ml. warm CH2Cl2 and filtered to yield 170 g. of white solid, m. 274-5.degree.. This ester, 1000 ppm. in a soln. of neutral white toilet soap contg. 20 wt. % Na **coconut** oil soap and 80 wt. % Na tallow soap, was mixed with measured amts. of liquid nutrient agar. Plates were poured, solidified, and streaked with a standard 4-mm. loopful of a 24-hour **broth culture** of Staphylococcus aureus strain F.D.A. No. 209. After incubation for 24 hrs. at 37.degree., the bacteriostatic endpoint was detd., which was 0.7 ppm. with this ester. When I derived from 1-dodecene or from 1-hexene was used, endpoints of 0.5 ppm. resulted.

L18 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1966:77850 HCAPLUS
DOCUMENT NUMBER: 64:77850
ORIGINAL REFERENCE NO.: 64:14633e-h
TITLE: Necrocitin; a new crystalline antifungal antibiotic and plant toxin
AUTHOR(S): Pawar, V. H.; Deshmukh, P. V.; Thirumalachar, M. J.

CORPORATE SOURCE: Hindustan Antibiotics Ltd., Poona, India
SOURCE: Hindustan Antibiot. Bull. (1965), 8(2), 59-63
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The production of toxin was investigated in liquid cultures of Myrothecium roridum on various media using different sources of C and N. Synthetic medium of the following compn. was used for the production of toxin: dextrose 5%, KH2PO4 0.1%, ammonium tartrate 0.22%, MgSO4 0.05%, minor element soln. 0.1% (FeSO4 0.1 g., CuSO4 0.015 g., ZnSO4 0.1 g., MnSO4 0.01 g., K2MoO4.5 H2O 0.01 g., and H2O to make 100 ml.). In contrast with submerged agitated growth on rotary shakers, **broth** from static **cultures** showed good antifungal activity in both the mycelium. and filtrate. Of 16 strains isolated from different hosts, the one from Ficus asperrima showed max. antibiotic activity. A static **broth culture** (10 l.) 18-20 days old was extd. with petroleum ether, washed, and dehydrated. The dried ext. was concnd. in vacuo to .apprx.1/20 vol. and kept overnight at 0.degree. to obtain a white cryst. ppt. which was recrystd. and yielded 200 mg. of the active compd. The active principle in the mycelium was also extd. but was only 20 mg. for 1500 g. of wet mycelium. This active compd. was colorless, cryst. and m. 162-164.degree.. The antibiotic has no activity against bacteria. The min. inhibitory concn. (.gamma./ml.) for the following fungi are: Trichophyton rubrum <2.5, T. mentagrophytes 5, Allescheria boydii 5, Fusarium oxysporum 5-10, and Aspergillus fumigatus 10-20. A soln. of necrocitin (I) showed wilting of **tomato** shoots at the min. concn. of 0.5 .gamma./ml. after 48 hrs. In 8-9-day-old bean seedlings, atomized with a 10 .gamma./ml. level of I, there was slight **water** -soaking of the leaves within 72 hrs. but no necrosis. With 20 .gamma./ml., there was necrosis and **water** soaking of the leaves after 72 hrs; at >25 .gamma. I/ml., the leaf injury became more pronounced.

L18 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1963:81224 HCAPLUS
DOCUMENT NUMBER: 58:81224
ORIGINAL REFERENCE NO.: 58:13838e-h,13839a-c
TITLE: Biochemistry of microorganisms. III. Curvulic acid, curvin, cursidin, cursalin, succinic acid, and fumaric acid as metabolic products of Curvularia siddiqui
AUTHOR(S): Kamal, A.; Qureshi, A. Ali; Khan, M. Ali; Khan, F. Mohd
CORPORATE SOURCE: Pakistan Council Soc. Ind. Res., Lahore
SOURCE: Tetrahedron (1963), 19, 117-22
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The metabolic soln. (105 l., obtained by removal of mycelium from a **culture broth** of C. siddiqui) satd. with (NH4)2SO4, extd. with EtOAc, the ext. shaken with satd. aq. NaHCO3, and the alk. ext. acidified with 50% HCl, satd. with (NH4)2SO4 and extd. with EtOAc, the mixed acid fraction fractionally crystd. from EtOAc-ligroine gave II, the mother liquor extd. with boiling H2O and the ext. cooled yielded 2.9 g. fumaric acid, m. 290.degree., heated with PhNH2 to give HO2CCH2CH(NHPh)CO2H, m. 211.degree.. The mold C. siddiqui was grown on a modified synthetic medium contg. 572.25 g. glucose monohydrate, 43.75 g. NH4Cl, 53.75 g. KH2PO4, 17.50 g. NaOAc.3H2O, 0.175 g. FeSO4.7H2O, 0.175 g. ZnSO4.7H2O, 0.0875 g. MnSO4.4H2O, 0.0875 g. CuSO4.5H2O, 0.0875 g. Na2-B4O7.10H2O, and 0.0875 g. vitamin B, in 141. distd. H2O, supplemented by **carrot** ext. (5 kg. **carrots** boiled 30 min. in 3 l. H2O at 10 atm. and strained through muslin) and made up to 17.5 l. Flasks

contg. 350 ml. medium were sterilized 30 min., inoculated, and incubated 20 days at 26-8% the mixt. filtered through glass wool, satd. with (NH4)4SO4 and extd. with EtOAc, the ext. concd. and shaken with aq. NaHCO3, the washed and dried residual org. soln. evapd., and the residue extd. successively with EtsO and EtOAc gave a dark brown product, recrystd. from **alc**. to give III and 0.15 g. I. The Et2O-EtOAc-insol. residue extd. with boiling H2O, the ext. satd. with (NH4)2SO4 and extd. with EtOAc, the dried ext. evapd. and the cryst. residue fractionally crystd. from hot H2O gave 3.8 g. curvin (IX), C13H15O6, m. 123% mol. wt. 261 (Rast), .lambda.max. 280 m.mu. (log .epsilon. 3.2), .lambda.min. 255 m.mu. (log .epsilon. 3.02). Tail fractions from the mother liquor crystd. from H2O and from EtOAc yielded 0.95 g. cursidin (X), Ct14H18O6, m. 117.degree., .lambda.max. 280 m.mu. (log .epsilon. 3.82), .lambda.min. 255 m.mu. (log .epsilon. 3.53). The H2O-insol., viscous, oily residue distd. in vacuo gave a yellow oil, b0.1 220.degree., crystd. from EtOAc-ligroine to give 1.95 g. cursalin (XI), Ct13H14O5, m. 170.degree. (decompn.), .lambda.max. 280 m.mu. (log .epsilon. 3.52), .lambda.min. 250 m.mu. (log .epsilon. 2.97). The aq. NaHCO3 exts. acidified with dil. HCl and satd. with (NH4)2SO4, extd. with EtOAc and the ext. dil. with ligroine, the decanted soln. treated with C and the filtered soln. evapd. gave 5.5 g. curvulic acid (IV, C12H14O7, m. 154.degree. (decompn.) (EtOAc-ligroine), pK8 4.7, .lambda.max 285 m.mu. (log .epsilon. 3.25), .lambda.min. 275 m.mu. (log .epsilon. 3.05). The mother liquor extd. with boiling Et2O and the dried ext. evapd. gave 1.05 g. succinic acid (XII), m. 184.degree., and 0.5 g. II, m. 218.degree. (decompn.). The decantation residue distd. at 190.degree./0.1 mm. gave 0.5 g. XII. Color reactions of IX, X, XI, and IV with HNO3, aq. and **alc**. FeCl3, Na2Fe(CN)5NO.2H2O, KI and Br, HCONHOH, 2,6-dichloroquinone chlorimide, 2,6-dichlorophenolindophenol, concd. HNO3, H3SO4 in CHCl3, and with Br-H2O were tabulated. IX (0.27 g.) in 20 ml. dry Me2CO refluxed 16 hrs. on a steam bath with 0.25 g. KI and 2 ml. MeI with addn. of 0.5 ml. MeI at 2 hr. intervals, the solvent evapd. and the residue dild. with H2O, extd. with Et2O and the product distd. yielded 0.27g. dimethylcurvin, C15H20O6, b0.1 160.degree.,.lambda.max 270 m.mu. (log .epsilon. 3.47),.lambda.min. 248 m.mu. (log .epsilon. 3.17). IV (0.27 g.) refluxed 4 hrs. in 5 ml. freshly distd. Ac2O contg. 0.5 g. anhyd. NaOAc and the mixt. poured onto ice gave 0.21 g. acetyleurvulic acid, Ct14H16O8, m. 201.degree. (decompn.) (EtOAc-ligroine). IV (0.27 g.) in MeOH treated with excess CH2N2 in Et2O 0.22 g. dehydrocurvulic acid (XIII),C12H12O6, m. 139.degree. (Et2O-petr. ether), .lambda.max 310 m.mu. (log .epsilon. 3.52),.lambda.min 300 m.mu. (log .epsilon. 2.72). XIII (0.252 g.) in 20 ml. dry Me2CO contg. 0.2 g. anhyd. K2CO3 and 2 ml. MeI refluxed 16 hrs. with addn. of 0.5 ml. MeI every 2 hrs., the solvent removed and the residue dild. with 10 ml. H2O, extd. with EtOAc and the product (0.2 g.) distd. gave 0.19 g. dimethyldehydrocurvulic acid, C14-H16O6b0.1 180.degree., .lambda.max 270 m.mu. (log .epsilon. 3.02), .lambda.min. 250 m.mu. (log .epsilon. 2.80).

L18 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1918:904 HCAPLUS
DOCUMENT NUMBER: 12:904
ORIGINAL REFERENCE NO.: 12:162b-f
TITLE: Studies in wound infections. The growth of anaerobic bacilli in fluid media under apparently aerobic conditions
AUTHOR(S): Douglas, S. R.; Fleming, A.; Colebrook, L.
CORPORATE SOURCE: London
SOURCE: Lancet (1917), II, 530-2
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The addition of a small piece of potato to **broth** before sterilization enables **cultures** of anaerobic bacilli commonly found in wounds to proliferate rapidly in the absence of any further procedures to produce anaerobic conditions. Further expts. showed that pieces of **carrot**, cabbage or **grape** were equally efficacious. Flakes of bran were also employed. Up to a certain point the more bran added the more copious and rapid was the growth. Of all the various substances tried, bran seemed to be most efficient in promoting the growth of anaerobic organisms in **broth cultures**.
An alk. ext. of bran was tested to see if some foodstuff, such as vitamines, might be given up to the broth, but growth was obtained only in those tubes in which a considerable mass of the solid **alc**. ext. had been placed or an extensive ppt. had been formed. Various porous substances, such as asbestos wool, cotton wool, lint, sponge, charcoal, chalk, cork, sand, cardboard, blotting paper and a rusty nail, were each added to a series of broth tubes which were then autoclaved. The results showed conclusively that any porous inert substance when added to broth renders this medium quite as suitable for the growth of anaerobic bacilli, without any further precautions as regards anaerobic conditions, as the addition of pieces of potato or other vegetable matter. These facts can be most simply explained by assuming that the bacilli lodged in the meshes of the various substances are locally able to produce anaerobic conditions and that the oxygen present in the surrounding broth is removed during the growth of the bacilli entangled in the porous mass. The most convenient substance to use is a small pledget of asbestos wool, as this can be readily sterilized by holding it in the flame of a Bunsen burner until it is red hot. Anaerobic bacilli will grow more rapidly and from a smaller implantation when, in addition to the usual anaerobic conditions, some porous substance such as potato or asbestos wool is added to the culture medium. Cf. C. A. 11, 2093.

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=> d que stat l21
L1             1 SEA FILE=REGISTRY ABB=ON  ALCOHOL/CN
L2             1 SEA FILE=REGISTRY ABB=ON  WATER/CN
L3             1 SEA FILE=REGISTRY ABB=ON  "FATTY ALCOHOLS"/CN
L4             1 SEA FILE=REGISTRY ABB=ON  "VEGETABLE OIL"/CN
L5             1 SEA FILE=REGISTRY ABB=ON  "MINERAL OIL"/CN
L6             5 SEA FILE=REGISTRY ABB=ON  L1 OR L2 OR L3 OR L4 OR L5
L7             4 SEA FILE=REGISTRY ABB=ON  "MINERAL OILS"/CN
L8             8 SEA FILE=REGISTRY ABB=ON  L6 OR L7
L9        146375 SEA FILE=HCAPLUS ABB=ON  ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR
                 ?COCONUT? OR ?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?
                 APPLE? OR ?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR
                 ?MANGOSTINE? OR ?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR
                 ?TOMATO?
L10        34017 SEA FILE=HCAPLUS ABB=ON  L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR
                 ?FATTY?(W)(?ALCOHOL? OR ?ETHER? OR ?ESTER?) OR ?POLYOL? OR
                 ?GLYCOL? OR (?VEGETABLE? OR ?MINERAL? OR ?SILICON?)(W)OIL? OR
                 ?LIPOSOME? OR ?LAMINAR?(W)?LIPID?)
L16            1 SEA FILE=HCAPLUS ABB=ON  L10 AND ?UNDIFF?(W)?CELL?
L17           17 SEA FILE=HCAPLUS ABB=ON  L10 AND ?CULTURE?(5A)?BROTH?
L18           18 SEA FILE=HCAPLUS ABB=ON  L16 OR L17
L20           29 SEA L18
L21           23 DUP REMOV L20 (6 DUPLICATES REMOVED)
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=> d ibib abs l21 1-23

L21 ANSWER 1 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2003-312987 [30] WPIDS
DOC. NO. CPI: C2003-082061
TITLE: Composition useful for treating e.g. bacterial infection in plants comprises terpene.
DERWENT CLASS: A97 C03
INVENTOR(S): FRANKLIN, L U
PATENT ASSIGNEE(S): (XIME-N) XIMED GROUP PLC
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003020024	A2	20030313	(200330)*	EN	27

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003020024	A2	WO 2002-US27512	20020828

PRIORITY APPLN. INFO: US 2002-388057P 20020611; US 2001-315163P 20010828
AN 2003-312987 [30] WPIDS
AB WO2003020024 A UPAB: 20030513
NOVELTY - A composition or its true solution comprises at least one terpene and/or **water**.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preparation of the composition involving forming a mixture of terpene and **water**.

ACTIVITY - Plant Antibacterial; Plant Fungicide; Plant Antiviral; Plant Protectant.

A phytoplasma treatment was carried out as follows: 12 healthy vines were treated with **water** (4 l) (control), citral (500 ppm), citral (1000 ppm) and citral (2500 ppm). Weekly observations for 3 weeks showed no phytoplasma on any plants treated with citral, indicating a minimum 5-fold safety margin.

MECHANISM OF ACTION - Microbial growth inhibitor.

Cell suspension of five **grape** strains (Cayuga, Melody, Shiraz, 3SV and Yugo), 2 sycamore strain (SLS-DC and SLS61) and 1 strain each of peach (45), plum (26), pecan (4BD2) and oleander (6) were prepared by re-suspending cells scraped from a 7-day old agar **culture** plate into fresh PW **broth** (3 ml). Cell suspension of each strain, was vortexed to ensure even mixing before an aliquot of 0.5 ml was dispensed into a sterile tube. One half of each citral solution (prepared by dissolving citral in sterile **water** at 500, 250 and 125 ppm as terpene solution) (1 ml) was added into each cell suspension tube. The final concentration of the terpene was 240, 25, and 62.5 ppm respectively. The treated cell suspension was incubated for 24 hours at 30 deg. C before

the color-changing units were determined by a 10 fold serial dilution in fresh PW **broth**. All the **culture** tubes were incubated for 20 days before the final reading was taken. MIC (minimum inhibitory concentration at which no cell survived) was 125 ppm for 4 **grape** strains, 2 sycamore strains and 1 peach strain and 62.5 ppm for strains from **grape**, plum, pecan and oleander.

USE - For the treatment of plants e.g. **grapevines**, stone fruit trees, coffee and ornamental plants infected with bacteria, mycoplasmas/phytoplasmas, fungi (claimed), spiroplasmas, viruses, algae and viroids before or after the onset of disease e.g. Pierce's disease of **grapevine**, sycamore leaf scorch, phony disease of peach, plum leaf scald, pecan leaf scorch, and oleander leaf scorch.

ADVANTAGE - The composition is environmentally friendly and acceptable to consumers.

Dwg.0/4

L21 ANSWER 2 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2001-610604 [70] WPIDS
CROSS REFERENCE: 2001-610470 [55]
DOC. NO. CPI: C2001-182342
TITLE: Novel strain of Streptomyces melanogenes designated Y31042 is useful as a biological pesticide particularly against whiteflies which infest commercially important crops.
DERWENT CLASS: C05 D16
INVENTOR(S): KUO, M; LAI, L; SHIANG, M
PATENT ASSIGNEE(S): (BIOT-N) DEV CENT BIOTECHNOLOGY
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6287845	B1	20010911	(200170)*		3

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 6287845	B1	Div ex	US 2000-571700	20000515
			US 2001-841977	20010425

PRIORITY APPLN. INFO: US 2000-571700 20000515; US 2001-841977 20010425
AN 2001-610604 [70] WPIDS
CR 2001-610470 [55]
AB US 6287845 B UPAB: 20011129

NOVELTY - A biologically pure culture of Streptomyces melanogenes strain Y31042, or its mutant or variant, is new.

DETAILED DESCRIPTION - A biologically pure culture of Streptomyces melanogenes strain Y31042, or its mutant or variant, is new. The culture has the characteristics:

(a) a yellowish pink to brown substrate mycelium with grayish aerial mycelium with moderate growth in a culture medium of yeast extract-malt extract agar, oat meal agar or inorganic salt agar;

(b) grows in a culture medium containing D-glucose, D-xylose, D-fructose, L-arabinose, raffinose, D-mannitol or I-inositol; and

(c) is highly virulent to white flies at dilutions of 1:100 to 1:1000 of a **culture broth** of the microorganism to **water**.

An INDEPENDENT CLAIM is also included for controlling a targeted pest comprising applying the novel culture.

ACTIVITY - Pesticide.

No biological data is given.

MECHANISM OF ACTION - None given.

USE - As a biopesticide, particularly against whitefly. Whitefly infests over 500 plant species including the commercially important sweet potato, **tomato**, beans, cotton, **carrot**, cassava, squash, lettuce, pepper, egg plant, **water** melon and **cucumber**. Whitefly also transmits over 70 diseases caused by viruses and microorganisms.

ADVANTAGE - The invention provides a safer and more effective pesticide against whitefly than prior art chemical pesticides.

Dwg.0/0

L21 ANSWER 3 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

ACCESSION NUMBER: 2000:361207 BIOSIS
DOCUMENT NUMBER: PREV200000361207
TITLE: Purification and characterization of organic solvent-stable lipase from organic solvent-tolerant Pseudomonas aeruginosa LST-03.
AUTHOR(S): Ogino, Hiroyasu (1); Nakagawa, Satoshi; Shinya, Kaori; Muto, Toshiaki; Fujimura, Nobuyuki; Yasuda, Masahiro; Ishikawa, Haruo
CORPORATE SOURCE: (1) Department of Chemical Engineering, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka, 599-8531 Japan
SOURCE: Journal of Bioscience and Bioengineering, (May, 2000) Vol. 89, No. 5, pp. 451-457. print.
ISSN: 1389-1723.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English

AB An organic solvent-stable lipase (LST-03 lipase) secreted into the **culture broth** of the organic solvent-tolerant Pseudomonas aeruginosa LST-03 was purified by ion-exchange and hydrophobic interaction chromatography in the presence of 2-propanol. The purified enzyme was homogeneous as determined by SDS-PAGE. The molecular mass of the lipase was estimated to be 27.1 kDa by SDS-PAGE and 36 kDa by gel filtration. The optimum pH and temperature were 6.0 and 37degreeC. LST-03 lipase was stable at pH 5-8 and below 40degreeC. Its hydrolytic activity was highest against tricaproin (C6), methyl octanoate (C8), and **coconut** oil respectively among the triacylglycerols, fatty acid methyl esters, and natural oils investigated. The enzyme cleaved not only the 1,3-positioned ester bonds, but also the 2-positioned ester bond of triolein. It exhibited high levels of activity in the presence of n-decane, n-octane, DMSO, and DMF as well as in the absence of an organic solvent. In addition, LST-03 lipase was stabler in the presence of n-decane, **ethyleneglycol**, DMSO, n-octane, n-heptane, isooctane, and cyclohexane than in the absence of an organic solvent.

L21 ANSWER 4 OF 23 MEDLINE DUPLICATE 2

ACCESSION NUMBER: 1999309742 MEDLINE
DOCUMENT NUMBER: 99309742 PubMed ID: 10380623
TITLE: Production and properties of the linamarase and amygdalase activities of Penicillium aurantiogriseum P35.
AUTHOR: Petruccioli M; Brimer L; Cicalini A R; Pulci V; Federici F
CORPORATE SOURCE: Department of Agrobiology and Agrochemistry, University of Tuscia, Viterbo, Italy.
SOURCE: BIOSCIENCE, BIOTECHNOLOGY, AND BIOCHEMISTRY, (1999 May) 63

(5) 805-12.
Journal code: 9205717. ISSN: 0916-8451.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990730
Last Updated on STN: 19990730
Entered Medline: 19990721

AB The effects of medium composition on the production of beta-glucosidase (amygdalase and linamarase) by Penicillium aurantiogriseum P35 were studied and the medium optimized as follows (g/l of deionized **water**): pectin, 10.0; (NH4)2SO4, 8.0; KH2PO4, 8.0; Na2HPO4, 2.8; MgSO4.7H2O, 0.5; yeast extract, 4.0; initial pH 6.0. When grown in a bench fermenter on this medium, the fungus produced 50.5 mU of amygdalase and 9.4 mU of linamarase per ml of **culture broth**. Two beta-glucosidases (PGI and PGII), each having amygdalase and linamarase activities, were recovered from the **culture broth** and purified; their relative molecular weights, as native enzymes, were estimated to be about 247,000 and 147,000, respectively. Both enzymes showed the same optimum pH (6.0) but different optimum temperatures (55 and 60 degrees C for PGI and PGII, respectively). Thermostability (10 min at 60 degrees C) and half-life of enzyme activity (7 hours at 60 degrees C) of PGII were higher than those of PGI (10 min at 50 degrees C and 2 hours at 55 degrees C, respectively). A wide range of cyanogenic glycosides (such as tetraphyllin B, epivolkenin, gynocardin, passibiflorin, prunasin, taxiphyllin, amygdalin, **lucumin**, sambunigrin, dhurrin, linamarin and cardiospermin sulfate) were hydrolyzed by both enzymes.

L21 ANSWER 5 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998058957 EMBASE
TITLE: Inhibition of Listeria monocytogenes and Salmonella enteriditis by combinations of plant oils and derivatives of benzoic acid: The development of synergistic antimicrobial combinations.
AUTHOR: Fyfe L.; Armstrong F.; Stewart J.
CORPORATE SOURCE: L. Fyfe, Dept. of Dietetics and Nutrition, Queen Margaret College, Clerwood Terrace, Edinburgh EH12 8TS, United Kingdom
SOURCE: International Journal of Antimicrobial Agents, (1998) 9/3 (195-199).
Refs: 19
ISSN: 0924-8579 CODEN: IAAGEA
PUBLISHER IDENT.: S 0924-8579(97)00051-4
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB This study describes inhibitory properties of combinations of oil of **fennel**, oil of anise or oil of basil with either benzoic acid or methyl-paraben against Listeria monocytogenes and Salmonella enteriditis. Micro-organisms were **cultured** at 37.degree.C in **broth** and viable counts measured over a 48-h period. S. enteriditis was particularly sensitive to inhibition by a combination of oil of anise, **fennel** or basil with methyl-paraben where there was < 10 CFU/ml

after 1 h. L. monocytogenes was less sensitive to inhibition by each combination however there was a significant reduction in growth of 4-8 log by combinations of all oils and methyl-paraben at 8, 24 and 48 h. Synergistic inhibition by one or more combinations was evident against each micro-organism.

L21 ANSWER 6 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:226719 BIOSIS
DOCUMENT NUMBER: PREV199800226719
TITLE: Enumeration of lactic acid bacteria in foods of plant origin using media based on **cucumber** and pepper juices.
AUTHOR(S): Yamani, Mohammed I. (1)
CORPORATE SOURCE: (1) Dep. Nutr. Food Technol., Fac. Agric., Univ. Jordan, Amman Jordan
SOURCE: Dirasat Agricultural Sciences, (Jan., 1998) Vol. 25, No. 1, pp. 72-81.
ISSN: 1026-3764.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English; Arabic
AB Two media based on **cucumber** and pepper juices were developed for the enumeration of lactic acid bacteria (LAB) in foods of plant origin. **Cucumber** juice agar (CJA) and pepper juice agar (PJA) were prepared by mixing 50 ml agar of a sterile solution (115degreeC/15 min) ml of a bromocresol green solution (0.2% in 50% ethanol), and 2g agar with 100 ml **cucumber** juice or pepper juice. Each juice was prepared by autoclaving (121degreeC/15 min) of a slurry made by blending 2 parts of **cucumber** or pepper pieces with 1 part distilled **water**.
CJA and PJA were tested by enumerating of LAB in 50 samples of 5 Jordanian traditional foods of plant origin and 30 brine samples of in-brine fermented vegetables, and in 25 samples of pure LAB **broth cultures**. MRS agar was used as a control. In general, the performance of CJA was comparable to that of MRS agar and both were superior to PJA. Thus, CJA could be used in examining foods of plant origin for LAB, especially when MRS agar is not readily available. The averages of the MRS agar LAB counts of the Jordanian traditional foods, mottabal albathinjan, **tomato** and tehineh salad, hoummos, turmus and shatta were 2.6 X 107, 1.4 X 107, 2.8 X 107, 1.7 X 107, 1.9 X 169 CFU/g, respectively. This high LAB load could play a role in the safety and the spoilage of these foods.

L21 ANSWER 7 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1997-239250 [22] WPIDS
DOC. NO. CPI: C1997-077002
TITLE: Culture of microorganisms used in food production - comprises incubating Lactobacillus casei subsp. casei, L. brevis, L. plantarum, L. alimentarius and Saccharomyces cerevisiae.
DERWENT CLASS: D13 D16
PATENT ASSIGNEE(S): (YAMA-I) YAMAKAWA K
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 09075066	A	19970325	(199722)*		8
JP 2731763	B2	19980325	(199817)		7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 09075066	A	JP 1995-229922	19950907
JP 2731763	B2	JP 1995-229922	19950907

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 2731763	B2	Previous Publ.	JP 09075066

PRIORITY APPLN. INFO: JP 1995-229922 19950907
AN 1997-239250 [22] WPIDS
AB JP 09075066 A UPAB: 19970530
Culture of microorganisms comprises simultaneously incubating Lactobacillus casei subsp. casei, Lactobacillus brevis, Lactobacillus plantarum, Lactobacillus alimentarius and Saccharomyces cerevisiae on a culture medium containing potato, apple, **carrot**, rice, sugar, wheat flour, salt and **water**.

Preferably the rice is polished rice, the sugar is triose, the wheat flour is high-strength flour, the salt is natural salt, and the **water** is natural **water**. The culture medium comprises (in pts. wt.): 45-55 potato, 45-55 apple, 45-55 **carrot**, 35-45 rice, 15-25 sugar, 40-50 wheat flour, 0.1-0.5 salt and 45-55 **water**.

USE/ADVANTAGE - The cluster of microorganisms (microbial flora) can be used in production on foods, e.g. bed of salted rice-bran paste for pickling or dried fish. The bed may be prepared by incubating 300 microbial flora with 3000 rice-bran 100 sugar and 720 **water**, to which NaCl is added in an amount of 13 wt. %, optionally together with red pepper, Japanese pepper, garlic and tangle weed. The pickles made on the bed have good taste which is kept for a long period (e.g. longer than one week at 4-5 deg. C) without yielding sour taste and are not spoiled by mould.

In an example, a mixture of 50 g potato, 50 g apple, 50 g **carrot**, 40 g polished rice and 50 cm3 **water** was applied to a mixer for 40-50 sec. 210 g Triose and 0.1 g natural salt, and one platinum loop each of Lactobacillus casei subsp. casei, Lactobacillus brevis, Lactobacillus plantarum, Lactobacillus alimentarius and Saccharomyces cerevisiae was inoculated. After agitation, the mixture was filtered through a sieve, wheat flour was added, and incubated at pH 5.0-8.0 and 32-35 deg. C for 2- 3 hrs. to yield two-times volume of **culture broth**.
Dwg.0/5

L21 ANSWER 8 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:398049 BIOSIS
DOCUMENT NUMBER: PREV199799697252
TITLE: Salmonella contamination associated with bacterial soft rot of fresh fruits and vegetables in the marketplace.
AUTHOR(S): Wells, J. M. (1); Butterfield, J. E.
CORPORATE SOURCE: (1) U.S. Dep. Agric., ARS, Eastern Regional Res. Cent., 600 E. Mermaid Lane, Wyndmoor, PA 19038 USA
SOURCE: Plant Disease, (1997) Vol. 81, No. 8, pp. 867-872. ISSN: 0191-2917.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Wash **water** from 66% of 401 samples of fresh fruits and vegetables collected in the marketplace and affected by bacterial soft rot were positive for suspected strains of Salmonella, i.e., black, hydrogen

sulfide-positive colonies on Salmonella-Shigella agar incubated for 24 h at 37 degree C. By comparison, 30% of 402 healthy samples were positive. Incidence of suspected Salmonella in **broth** enrichment **cultures** was 59% in 533 soft rotted samples and 33% in 781 healthy samples. Thirty percent of 166 representative strains of suspected Salmonella, selected at random from 20 different commodities, were confirmed to be Salmonella by physiological and serological tests. Adjusting incidence values accordingly, Salmonella contamination was potentially present in at least 18 to 20% of soft rotted samples and in 9 to 10% of healthy samples. Wash **water** from 120 paired healthy and soft rotted fruits and vegetables contained an average of 1.0 times 10-5 and 3.7 times 10-6 CFU/ml, respectively, of suspected Salmonella-a ratio of 1:37. Average concentrations of suspected Salmonella in enrichment cultures of healthy and soft rotted samples were 7.5 times 10-7 and 2.7 times 10-9 CFU/ml, respectively, also in the ratio of 1:37. Fresh potato, **carrot**, and pepper disks coinoculated with the soft rot bacterium Erwinia carotovora and with Salmonella typhimurium, and incubated for up to 72 h at room temperature, contained approximately 10 times the concentration of S. typhimuriwn as did disks inoculated with Salmonella alone. Disks coinoculated with Pseudomonas viridiflava and S. syphimurium contained approximately three times the Salmonella populations as disks inoculated with Salmonella alone.

L21 ANSWER 9 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 3
ACCESSION NUMBER: 1997:318702 BIOSIS
DOCUMENT NUMBER: PREV199799609190
TITLE: Enhanced secretion of peroxidase from **carrot** hairy roots using polyethylene **glycol**.
AUTHOR(S): Kim, Yong Hwan; Kim, Ji Hyeon; Yoo, Young Je (1)
CORPORATE SOURCE: (1) Inst. Genetics and Molecular Biol., Seoul Natl. Univ., Seoul 151-742 South Korea
SOURCE: Journal of Fermentation and Bioengineering, (1997) Vol. 83, No. 4, pp. 397-400.
ISSN: 0922-338X.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Effects of various organic solvents and polyethylene **glycol** (PEG) on the secretion of peroxidase from **carrot** hairy roots were investigated. The peroxidase activity in **culture broth** was significantly enhanced without adverse effects on root growth when PEG was employed while other organic permeabilizing agents exerted harmful effects on root growth. PEG with a molecular weight of over 6,000 g/mol enhanced the secretion of peroxidase dramatically. Since PEG did not induce the formation of pores in the root cell membrane as confirmed by staining using Neutral Red, it was thought that the mechanism of secretion enhancement of peroxidase by PEG is different from that of other organic solvents which make the cell membrane permeable. Since PEG does not adversely affect the root growth, PEG can be applied to the repeated use of root cells for production of peroxidase.

L21 ANSWER 10 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 4
ACCESSION NUMBER: 1996:22933 BIOSIS
DOCUMENT NUMBER: PREV199698595068
TITLE: Feasibility of the polarographic method for the evaluation of the Mycobacterium fortuitum growth in different culture media.
AUTHOR(S): Niero, Rinaldo (1); Malucelli, Maria Ivette Carboni
CORPORATE SOURCE: (1) Dep. Epidemiol., Ecol. Micobacteria, Fac. Sause

Publica, USP 01246-904, Sao Paulo Brazil
SOURCE: Revista de Ciencias Farmaceuticas, (1995) Vol. 16, No. 0, pp. 147-154.
ISSN: 0101-3793.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English; Portuguese
AB In the present research the feasibility of the polarographic method in the determination of the Mycobacterium fortuitum growth in different **culture** media was assayed. The following **broths** media were tested: Middlebrook's 7H9 (7H9), Long & Seibert's (L&S), Kirchner's (K), Sauton's (S), **coconut water** (CW), glutamate-added **coconut water** (GCW), Proskauer & Beck's (P&B) and the Dubos' serum-modified medium (DM). Polarographic assays of oxygen uptake were carried out by means of a polarography of oxygen electrode (platinum and Ag-AgCl reference electrode) combined with a sensor for temperature and the reaction chamber. Polarographic determinations were carried out around 20, 40, 70, 90 and 100 hours after inoculations, using 0.5 ml of the bacterial growths, being the oxygen uptake expressed in m-mu-MO-2/s/0.5 ml. Results have shown different bacterial growth curves, which were related to the quantity of the oxygen consumption in different lengths of time. DM, 7H9, K, S, P&B, GCW, CW and L&S were, in decreasing order, the media which presented greater outwork. The conclusion was that the polarographic method can be applied for the evaluation of the M. fortuitum growth, being also able to be used as an alternative method for assaying liquid culture media.

L21 ANSWER 11 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1994-182611 [22] WPIDS
DOC. NO. CPI: C1994-082776
TITLE: Sepn. of crystalline orange pigments from Monascus **culture broths** - by transfer without dissolution to immiscible vegetable and/or **mineral oil** phase.
DERWENT CLASS: D13 D16 G01
INVENTOR(S): ST, MARTIN E J
PATENT ASSIGNEE(S): (UNVO) UOP
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5318902	A	19940607	(199422)*		9

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 5318902	A	CIP of	US 1988-261805	19881024
		CIP of	US 1990-547704	19900703
			US 1992-948040	19920921

PRIORITY APPLN. INFO: US 1988-261805 19881024; US 1990-547704 19900703; US 1992-948040 19920921
AN 1994-182611 [22] WPIDS
AB US 5318902 A UPAB: 19940722
Crystalline, H2O-insol. orange pigments (I) produced by a Monascus sp. in an aq. nutrient medium contg. assimilable C, N and organic sources are isolated as follows: (a) the medium is contacted with an oil (II) (liq.

vegetable and/or **mineral oil**); and (b) (I) transfer to the oil phase where they are recovered after the phase is sepd. from the aq. layer.

Pref. amt. of oil phase is pref. 0.5-20% esp. 1-10% by wt. of culture medium. Pref. **vegetable oil**-(II) are corn, cottonseed, soybean, safflower, **sunflower**, peanut, sesame, rapeseed and olive oils.

The initial fermentation is pref. effected in the presence of a crystalline-(I) inducer (US 4927760) to induce crystallisation, with the nutrients in the sepd. aq. phase being replenished and the aq. being recycled.

Dwg.0/2

L21 ANSWER 12 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:206256 BIOSIS
DOCUMENT NUMBER: PREV199395107481
TITLE: Production of thermotolerant beta-amylase by Bacillus circulans.
AUTHOR(S): Kwan, H. S. (1); Kso, K. H.; Chan, K. Y.; Cheng, S. C.
CORPORATE SOURCE: (1) Dep. Biol., Chinese Univ. Hong Kong, Shatin, N.T. Hong Kong
SOURCE: World Journal of Microbiology & Biotechnology, (1993) Vol. 9, No. 1, pp. 50-52.
ISSN: 0959-3993.
DOCUMENT TYPE: Article
LANGUAGE: English

AB An isolate from a Hong Kong soil sample which produced beta-amylase was identified as a thermotolerant strain of Bacillus circulans with a growth range of 35 to 55 degree C. The beta-amylase was stable at 45 degree C for 30 min but lost half of its activity after 30 min at 50 degree C. Maximum specific activity of beta-amylase (36.2 units/mg protein) in the **culture broth** was detected after 36 h of cultivation at 45 degree C in a medium containing soluble starch, beef extract, **coconut water** and inorganic salts.

L21 ANSWER 13 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1990-366323 [49] WPIDS
DOC. NO. CPI: C1990-159483
TITLE: Methyl ethyl ketone and corresp. **alcohol** prodn. - by cultivating aliphatic carboxylic acid with e.g. Penicillium Trichoderma, Aspergillus, Fusarium, etc..
DERWENT CLASS: D16 E17
PATENT ASSIGNEE(S): (SHOS) SHOWA SANGYO CO
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 02265495	A	19901030	(199049)*		13
JP 2826748	B2	19981118	(199851)		14

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 02265495	A	JP 1989-211946	19890817
JP 2826748	B2	JP 1989-211946	19890817

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 2826748	B2	Previous Publ.	JP 02265495

PRIORITY APPLN. INFO: JP 1988-224594 19880909; JP 1988-320694 19881221; JP 1989-211946 19890817
AN 1990-366323 [49] WPIDS
AB JP 02265495 A UPAB: 19930928
Methyl ketone and/or its corresponding **alcohol**, are prepd. by cultivating microorganism which belongs to the genus fusarium, Hypocrea, Cladosporium, Neosartorya, Hemicarpenteles, Chaetosartorya, Gibberella, Mycosphaerella, Eupenicillium, Mycosphaerella, Nectria, Emericell, Monascus, Syncephalastrum, Podostroma, Hamigera, Trichocoma, **Fennellia**, Preussia, Microascus, Taralymyces, Sclerocleista, Penicilliopsis, or Dichotomyces, or species Penicillium decumbens, P.pseudocasei, P.urticas, P.crustosum, P.canescens, P.viridicatum, P.camembertii, P.thomii, P.biforme, Trichoderma polysporum, T.Hamatum, Aspergillus wentii, A.terreus, A.tamari, A.oryzae, or A.sojae, and is capable of converting fatty acid or ester of A-CH2CH2COOH (wherein A is aliphatic hydrocarbon residue which may contains a C=C double bond) into methyl ketone of ACOCH3 and/or secondary **alcohol** of ACH(OH)CH3, on a culture medium containing the fatty acid or its ester or salt to produce the methyl ketone and/or **alcohol**, and recovering the products from the **culture broth**.
0/0

L21 ANSWER 14 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 89155101 EMBASE
DOCUMENT NUMBER: 1989155101
TITLE: Isolation, growth characteristics, and long-term storage of fungi cultivated by attine ants.
AUTHOR: Cazin Jr. J.; Wiemer D.F.; Howard J.J.
CORPORATE SOURCE: Department of Microbiology, University of Iowa, Iowa City, IA 52242, United States
SOURCE: Applied and Environmental Microbiology, (1989) 55/6 (1346-1350).
ISSN: 0099-2240 CODEN: AEMIDF
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 004 Microbiology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Seven pure-culture strains of fungi cultivated by attine ants (ant-garden fungi) were isolated from locally maintained leaf-cutting ant colonies. An ant-garden fungus strain obtained from an Atta cephalotes colony, when offered to ants of the colony from which the fungus was isolated, was accepted as their own. Young fungus cultures were harvested and incorporated into the fungus garden, and cultures of intermediate age were used to begin a new fungus garden; old cultures were simply harvested. To facilitate further research on this fungus, growth characteristics of the different isolates were studied under a variety of conditions. They grew better at 24.degree.C than at 30.degree.C, and growth did not occur at an incubation temperature of 37.degree.C. In a **broth culture** medium, growth was enhanced by aeration of the culture and by addition of yeast extract, olive oil, sesame oil, peanut oil, soybean oil, corn oil, **sunflower** oil, cottonseed oil, walnut oil, safflower oil, or **mineral oil**. Glycerol did not noticeably affect growth, but Tween 80 inhibited growth. These fungi were

extremely sensitive to cycloheximide, growth being totally inhibited at cycloheximide concentrations ranging from 0.4 to 4.0 .mu.g/ml. To date, the ant-garden fungus isolates have remained viable in long-term **mineral oil**-overlay storage cultures for up to 4 years.

L21 ANSWER 15 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1989:408836 BIOSIS
DOCUMENT NUMBER: BA88:78261
TITLE: RHEOLOGICAL CHARACTERIZATION OF **SUNFLOWER** OIL SOAPSTOCKS.
AUTHOR(S): MELGAR HIRALDO A; GOMEZ HERRERA C; FLORES LUQUE V; GALLEGOS MONTES C
CORPORATE SOURCE: DEP. DE INGENIERIA QUIMICA, FAC. DE QUIMICA, UNIV. DE SEVILLA, C/PROF. GARCIA GONZALEZ S/N, 41012 SEVILLA ESPAGNE , RFCG 89-07.
SOURCE: REV FR CORPS GRAS, (1989) 36 (2), 71-77.
CODEN: RFCGAE. ISSN: 0035-3000.
FILE SEGMENT: BA; OLD
LANGUAGE: French
AB The use of soapstocks from **vegetable oils**, as carbon sources in biotechnological processes, is being considered as a tentative profit of these by-products from the oil refining industry. This possibility depends markedly on the rheological behaviour of the **culture broths** containing the soapstock. The aim of this work is to study the rheological behaviour of two soapstocks from **sunflower** oil, with percentages for soap, triacylglycerols and **water** markedly different. The rheological tests have been carried out principally in oscillatory shear, but the results have been compared with those obtained in steady shear. The experimental results show that the soapstocks studied present viscoelasticity. The shear produces structural breakdown. The variation of the complex viscosity versus the frequency can be described by a mathematical model with high level of significance.

L21 ANSWER 16 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1988-252274 [36] WPIDS
DOC. NO. CPI: C1988-112448
TITLE: Pectin prepn. from plant tissue - using bacillus microorganism or **culture broth**, etc., gives minimal decomposition of released pectin.
DERWENT CLASS: B04 D13 D16 D21
INVENTOR(S): SAKAI, T
PATENT ASSIGNEE(S): (SAKA-I) SAKAI T
COUNTRY COUNT: 6
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2201684	A	19880907	(198836)*		26
DE 3806423	A	19880908	(198837)		
JP 63213501	A	19880906	(198841)		
FR 2611367	A	19880902	(198842)		
DK 8800931	A	19880829	(198846)		
US 4835262	A	19890530	(198926)		7
GB 2201684	B	19900905	(199036)		
JP 06008322	B2	19940202	(199408)		
DE 3806423	C2	19970327	(199717)		12

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2201684	A	GB 1988-4407	19880225
DE 3806423	A	DE 1988-3806423	19880229
JP 63213501	A	JP 1987-46685	19870228
FR 2611367	A	FR 1988-2369	19880226
US 4835262	A	US 1988-160644	19880226
JP 06008322	B2	JP 1987-46605	19870228
DE 3806423	C2	DE 1988-3806423	19880229

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 06008322	B2 Based on	JP 63213501

PRIORITY APPLN. INFO: JP 1987-46605 19870228
AN 1988-252274 [36] WPIDS
AB GB 2201684 A UPAB: 19930923
Prepn. of pectin comprises releasing pectin from plant tissue contg. pectic substances using a suitable Bacillus microorganism, or its **culture broth** or processed material, which liberates the pectin without substantial degradation, and recovering the pectin.
Prefd. microorganisms are: B. subtilis, esp. strains IFO 3108, 3134, 3336, 3513, 12112, 12113, 12210, 13719, 13721, 14117 and 14140; B. amyloliquefaciens, esp. IFO 14141; B. cereus, esp. IFO 3002 and 3132; B. circulaus, esp. IFO 13632; etc. or their mutants or similar strains. Esp. pref. are B. subtilis IFO 12113 or 13719. Pref. the material is citrus fruit peel or segment cover. Also useful are beet pulp, **water** melon or melon peel, stems of **carrot**, burdock, radish, etc.
USE/ADVANTAGE - Pectin is useful in foods, medicines and cosmetics. Yields are good and pectin decomposn. is minimised. Inexpensive plant material or plant waste may be used.
0/2
ABEQ GB 2201684 B UPAB: 19930923
A process for preparing pectin which comprises subjecting a plant tissue containing pectic substances to the action of a microorganism which belongs to the genus Bacillus and possesses an activity liberating pectin from a plant tissue but does not substantially possess an activity of decomposing pectin, or a **culture broth** or processed material thereof to liberate pectin from the plant tissue and recovering the pectin.
ABEQ US 4835262 A UPAB: 19930923
Prepn. of pectin comprises treatment of disintegrated plant tissues with a Bacillus microorganisms (e.g. B. substits, B. amyloliquefaciens, B. cereus, B. circulans, etc.) or culture media used for the propagation of a Bacillus; and subsequent separation of pectin.
Pref. starting material is citrus fruit peel. The enzymes from Bacilli cleave pectins without degradation of the pectin.
USE - the prods. are polysaccharides for nutrients, medicines and cosmetics.

L21 ANSWER 17 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1989:140786 BIOSIS
DOCUMENT NUMBER: BA87:75439
TITLE: ALLELOPATHIC EFFECT OF COMMON WEEDS ON SOYBEAN GROWTH AND SOYBEAN AND BRADYRHIZOBIUM SYMBIOSIS.
AUTHOR(S): MALLIK M A B; TESFAI K
CORPORATE SOURCE: AGRIC. RES. PROGRAM, LANGSTON UNIV., LANGSTON, OKLA. 73050, USA.

SOURCE: PLANT SOIL, (1988) 112 (2), 177-182.
CODEN: PLSOA2. ISSN: 0032-079X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB **Water** extracts of shoot of common lambsquarters (Chenopodium album), yellow nutsedge (Cyperus esculentus) and **sunflower** (Helianthus annuus) at 1% level significantly reduced soybean seed germination. Soybean seedlings inoculated with **broth culture** of nodule bacterium were grown for 25 days in N-free nutrient solution amended with cold **water** extracts of weed residues at 1 and 2% levels. At both levels extracts from residues of all weeds except that of lambsquarters enhanced growth of soybean. Nodulation was generally stimulated by the extracts of five weeds at 1% level except that of lambsquarters. Extracts from lambsquarters at 2% level completely suppressed and at 1% level reduced nodulation by 60%. Extracts from green foxtail (Setaria viridis), Pennyslvania smartweed (Polygonium pensylvanicum) and **sunflower** at 2% level reduced and at 1% level enhanced nodulation. The residues of lambsquarters shoot incorporated with soil at 0.5 and 1% levels caused 85 and 96% reduction respectively in seed germination and those of Pennsylvania smartweed and **sunflower** at 1% reduced seed germination by 40-70% but not at 0.5% level. The residues of foxtail and smartweed at both levels enhanced growth and nodulation. Under similar conditions nutsedge at 1% level stimulated nodulation but not growth. The residues of lambsquarters at both levels were inhibitory to nodulation but stimulated growth at 0.5% level.

L21 ANSWER 18 OF 23 JICST-EPlus COPYRIGHT 2003 JST
ACCESSION NUMBER: 880204517 JICST-EPlus
TITLE: The isolation and identification of lactic acid bacteria from traditional **alcoholic** drink in South East Asia.
AUTHOR: OHHIRA IICHIROH; DARMADJI P; KATAOKA KEI; NAKAE TOSHITAKA
CORPORATE SOURCE: Okayama Univ., Graduate School
SOURCE: Rakuno Kagaku, Shokuhin no Kenkyu (Japanese Journal of Dairy and Food Science), (1988) vol. 37, no. 1, pp. A.1-A.10. Journal Code: F0966A (Tbl. 5, Ref. 16)
CODEN: RKSKD8; ISSN: 0385-0218
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New
AB A research was done to isolate and identify lactic acid bacteria from the traditional **alcoholic** drinks (**coconut** wine and rice wine) which have been fond of drinking in South East Asia. **Coconut** wine is produced from **coconut** juice which has been collected from flower stalk of **coconut** tree (Phoenix dactylifera), and fermented in room temperature for a few days. Rice wine is produced using rice (Oryza sativa indica), RAGI as a starter for fermented foods in South East Asia and local fresh spring **water**, and the fermentation is done at each of farm houses for about one month at room temperature. Both wines were examined for counting and isolation of lactic acid bacteria in BCP plate count agar and modified ELLIKER **culture broth** . **Coconut** wine contained about 1.1*107/ml of lactic acid bacteria, the strains of which were identified as Leuconostoc oenos (1 strain) and Lactobacillus alimentarius (2 strains). On the other hand rice wine contained about 2.1*106/ml of lactic acid bacteria, which were identified as Pediococcus halophilus and acidilactici (3 strains), Lactobacillus corvatus (1 strain), Lactobacillus coryniformis subsp. coryniformis (2 strains) and Lactobacillus casei subsp. casei (1 strain).(author abst.)

L21 ANSWER 19 OF 23 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1986-262891 [40] WPIDS
DOC. NO. NON-CPI: N1986-196538
DOC. NO. CPI: C1986-113904
TITLE: Prepn. of somatic cell hybrid of rutaceae plant - by sub-culturing to give undifferentiated multiplied cell and preventing embryo formation.
DERWENT CLASS: C03 D16 P13
PATENT ASSIGNEE(S): (FRUI-N) FRUIT TREE RES STAT; (KIKK) KIKKOMAN CORP; (NORQ) NORINSHO KK
COUNTRY COUNT: 3
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 61192283	A	19860826	(198640)*		6
IL 76634	A	19900319	(199021)		
US 4940836	A	19900710	(199030)		
JP 03020229	B	19910318	(199115)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 61192283	A	JP 1985-30611	19850220
US 4940836	A	US 1985-782385	19851001
JP 03020229	B	JP 1985-30611	19850220

PRIORITY APPLN. INFO: JP 1985-30611 19850220
AN 1986-262891 [40] WPIDS
AB JP 61192283 A UPAB: 19930922
Prepn. of somatic cell hybrid of Rutaceae plant comprises culturing ovule of the Rutaceae plant in a medium not contg. plant hormone to obtain culture cell derived from nucleus; subculturing the culture cell in medium contg. plant hormone to obtain undifferentiated multiplicated cells; culturing the cells in medium opt. contg. plant hormone and having different medium components, to obtain the embryo-forming cells; fusing the protoplast derived from this embryo-forming cell with the protoplast derived from culture cell having little or no differentiation ability, which is obtd. by culturing tissue cell or tissue other than ovule, of other Rutaceae plants; and culturing the fused protoplast in medium contg. high concn. of saccharide and not plant hormone to selectively obtain somatic cell hybrid.

Rutaceae plants are orange, **grapefruit**, lemon, etc. Plants hormones are cytokinin, auxin, gibberellin, etc. Subcultivation prevents the embryo formation and gives undifferentiated multiplicated cell. The protoplast of the embryo-forming cell can be obtd. by treating the cell with cell wall-decomposing enzyme such as cellulase. Other Rutaceae plants are Bengal quince, mandarin orange, etc., and tissue cell can be obtd. from root, leaf, etc. Fusion is conducted in a liq. contg. Ca ion, **polyethyleneglycol** and mannitol. Fused protoplast is cultured in medium contg. high concn. of saccharide such as sucrose, glucose, etc.

ADVANTAGE - Somatic cell hybrid of Rutaceae plant can be obtd. efficiently.

0/0
ABEQ US 4940836 A UPAB: 19930922
Somatic hybrid plants of the Rutaceae family (RF) are produced by (A) fusing (a) 1st protoplasts of embryonic cells resistant to fusion

treatment, having a high proliferation activity and obtd. by cultivation of **undifferentiated cells** derived from a subculture of cultivated cells originated from the nucellus of a 1st plant of the RF with (b) 2nd protoplasts derived from cultivated cells without differentiation potency and originated from tissue cells or tissues other than the ovules of a 2nd plant of the RFRF. (B) Cultivating the fused cells obtd. in a medium contg. sufficient sucrose for the selective embryogenesis of the fused cells. The 2 RF plants have been selected from different species.

The 1st plant is orange, tangerine, **grapefruit** or lemon and the 2nd plant is trifoliate orange, Troyer citrange, orange, mandarine, **grapefruit** or lemon. The medium contains 0.4-0.6 M sucrose, and also cytokinin, auxin and/or gibberellin.

ADVANTAGE - A selective method for the prodn. of new somatic hybrids of Rutaceae plants. @

L21 ANSWER 20 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1985:227260 BIOSIS
DOCUMENT NUMBER: BA79:7256
TITLE: MOKO DISEASE ATYPICAL SYMPTOMS INDUCED BY AFLUIDAL VARIANTS OF PSEUDOMONAS-SOLANACEARUM IN BANANA MUSA-**ACUMINATA** PLANTS.
AUTHOR(S): WOODS A C
CORPORATE SOURCE: PLANT PATHOLOGY DEPARTMENT, VINING C. DUNLAP LABORATORIES, UNITED FRUIT CO., LA LIMA, HONDURAS, CENTRAL AMERICA.
SOURCE: PHYTOPATHOLOGY, (1984) 74 (8), 972-976.
CODEN: PHYTAJ. ISSN: 0031-949X.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Isolations were made from 1476 moko-diseased banana plants in Honduras, and the bacteria obtained were classified according to colony morphology. Large fluidal (F) colony types were found in 73% and small fluidal round (SFR) colony types in 10% of the cases. Small afluidal variant (AFV) colony types were associated with either F or SFR colony types in 41% of the cases and occurred alone in 17% of the cases. AFV isolates were morphologically indistinguishable from spontaneous afluidal mutants produced after prolonged still **broth culture** or storage in **water**. When inoculated into potted or mature field plants by methods simulating wound infection during routine cultivation, all 3 colony types incited disease, AFV being the least aggressive. Symptoms typical of moko disease developed in field plants inoculated with F or SFR bacteria. AFV bacteria never caused external symptoms in mature wound-inoculated plants, but suckers arising from the same corms often became stunted and showed discoloration and necrotic areas. Other plants remained symptomless even though invasion by AFV bacteria into corm tissue was evident. Streptomycin-resistant AFV types occurred in 78% of diseased corms from suckers of banana plants inoculated 28 wk previously with a streptomycin-resistant F strain. An average of 18.1% of colony-forming units recovered was of the AFV type. Ten AFV isolates selected from F-inoculated mats were injected into small banana plantlets. All developed wilt and necrosis, although at a reduced rate compared to the F parent. Results suggest that AFV colony types of P. solanacearum have a previously unrecognized potential for causing disease in banana plants.

L21 ANSWER 21 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1979:215609 BIOSIS
DOCUMENT NUMBER: BA68:18113
TITLE: TISSUE CULTURE UNDER CONDITIONS OF BORON DEFICIENCY.
AUTHOR(S): KROSING M
CORPORATE SOURCE: WEIMARISCHE STR. 5, 1000 BERLIN 31, W. GER.

SOURCE: Z PFLANZENERNAEHR BODENKD, (1978) 141 (5), 523-534.
CODEN: ZPBOAL. ISSN: 0044-3263.
FILE SEGMENT: BA; OLD
LANGUAGE: German
AB Cambium tissue from **sunflowers** (Helianthus annuus) and **carrots** (Daucus carota) were cultured in nutrient solution according to Murashige and Skoog with graduated supplies of B. A light-colored and well developed callus was formed only in the presence of B. Explants on a B-deficient medium agglutinated at the edges had only small areas of cell division and revealed appositions on the walls of some cells. Deficient tissues also became noticeably darker. Callus grown on normal medium and then transferred to B-deficient medium slowed down in growth rate, at the latest after 4 wk, and also turned dark. In contrast to normal calli, the deficient cultures could not be easily separated in **water** into individual cells or small cell groups. Moreover, the cells were smaller on the average and often revealed grainy contents and (in the case of **carrots**) plasma accumulation at the ends of the cells. A large number of deficient cells were plasmolyzed. An accumulation of **undifferentiated cells** in the cambium region is particularly striking in dicotyledons under conditions of B deficiency. If this symptom should be the result of cell division activity, then isolated cambium should react to B deficiency with intensive cell division. Contrary to expectations isolated cambium of **sunflowers** and **carrots** in tissue culture did not reveal accelerated cell division under conditions of B deficiency. These results indicate that the symptoms of "increased cambium growth" in intact dicotyledons is due to a secondary effect of B deficiency.

L21 ANSWER 22 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1978:92294 BIOSIS
DOCUMENT NUMBER: BR15:35794
TITLE: **COCONUT WATER BROTH** AND AGAR AS MICROBIOLOGICAL **CULTURE** MEDIA.
AUTHOR(S): FERNANDEZ W L; ALEJAR M S; GONZALES J L
SOURCE: Kalikasan, (1977 (RECD 1978)) 6 (1), 78-79.
CODEN: KPJBAR.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L21 ANSWER 23 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1977:239911 BIOSIS
DOCUMENT NUMBER: BA64:62275
TITLE: CULTIVATION CONDITIONS FOR THE MUTANT OF ASPERGILLUS-TERRICOLA PRODUCING A PROTEOLYTIC ENZYME.
AUTHOR(S): ARAVINA L A; PONOMAREVA V D; TERESHIN I M; KASATKINA I D; GREKOVA V K
SOURCE: MIKROBIOLOGIYA, (1976 (RECD 1977)) 45 (5), 770-776.
CODEN: MIKBA5. ISSN: 0026-3656.
FILE SEGMENT: BA; OLD
LANGUAGE: Unavailable
AB The effect of temperature, aeration and various foam suppressors on the growth of a mutant of A. terricola H-20 and on its production of proteolytic enzymes was studied. A high level of the proteolytic activity (12-15 PU[proteolytic activity unit]/ml) was found at 28.degree.-30.degree. C, with the rate of O2 dissolution being 0.38-0.86 g/per h. Enzyme synthesis was inhibited by a decrease in the temperature to 22.degree.-24.degree. C, a surplus (1.07 g O2/h) or insufficinet (0.18 g O2/h) O2 content in the medium, and by adding animal (spermwhale) fat to the medium as a froth breaker. The best rate of protease biosynthesis was

obtained with stepwise addition of **sunflower** oil to the **culture broth**. The best synthetic froth breakers for the proteolytic enzyme biosynthesis were LG-109 at a concentration of 0.1-1% and polymethylsiloxane PMS-A 154 as a **water** emulsifier at a concentration of 0.5% of the medium.

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     (FILE 'HOME' ENTERED AT 10:51:23 ON 23 JUN 2003)

     FILE 'HCAPLUS' ENTERED AT 10:51:36 ON 23 JUN 2003

     FILE 'REGISTRY' ENTERED AT 10:51:50 ON 23 JUN 2003
                E ALCOHOL/CN
                E WATER/CN
                E FATTY ALCOHOLS/CN
                E ALCOHOL/CN
L1              1 S E3
                E WATER/CN
L2              1 S E3
                E FATTY ALCOHOLS/CN
L3              1 S E3
                E FATTY ETHERS/CN
                E FATTY ESTERS/CN
                E POLYOLS/CN
                E GLYCOLS/CN
                E VEGETABLE OIL/CN
L4              1 S E3
                E MINERAL OIL/CN
L5              1 S E3
                E LIPOSOMES/CN
                E LAMINAR LIPIDS/CN
                E SILICONE OILS/CN
L6              5 S L1 OR L2 OR L3 OR L4 OR L5
                E MINERAL OILS/CN
L7              4 S E3
L8              8 S L6 OR L7

     FILE 'HCAPLUS' ENTERED AT 10:56:06 ON 23 JUN 2003
L9         146375 S ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR ?COCONUT? OR ?COCOANUT? O
L10         34017 S L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR ?FATTY?(W)(?ALCOHOL? OR
L11          4945 S L10 AND (?COSMETIC? OR ?SKIN? OR ?HAIR? OR ?NAIL? OR ?LIPS? O
L12          1888 S L11 AND ((?AEROSOL? OR ?PUMP?)(W)?SPRAY? OR ?CREAM? OR ?DISPE
L13             0 S L12 AND (?UNDIFF?(W)(?CELL? OR ?CULTUR?))
L14             0 S L12 AND ?UNDIFF?(W)?CELL?
L15             0 S L11 AND ?UNDIFF?(W)?CELL?
L16             1 S L10 AND ?UNDIFF?(W)?CELL?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     11:12:20 ON 23 JUN 2003

     FILE 'HCAPLUS' ENTERED AT 11:16:15 ON 23 JUN 2003
L17            17 S L10 AND ?CULTURE?(5A)?BROTH?
L18            18 S L16 OR L17
L19             2 S L12 AND ?CULTURE?(5A)?BROTH?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     11:18:09 ON 23 JUN 2003
L20            29 S L18
L21            23 DUP REMOV L20 (6 DUPLICATES REMOVED)

     FILE 'HCAPLUS' ENTERED AT 11:28:05 ON 23 JUN 2003

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     11:29:25 ON 23 JUN 2003
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